CLAIMS

1 Process for removing a contaminant from contaminated groundwater, which process comprises the following steps:

a) a biologically active layer is applied on or in the soil

b) the contaminated groundwater is contacted with the biologically active layer

2 Process according to claim 1, characterized in that the biologically active layer is applied discontinuously.

3 Process according to either of claims 1-2, characterized in that the biologically active layer is of such depth that the lower part of the layer is located in the groundwater.

4. Process according to any one of claims 1-3, characterized in that the contaminated groundwater is brought into or on top of the biologically active layer.

5. Process according to any one of claims 1-4, characterized in that the contaminated groundwater is repeatedly contacted with the biologically active layer with the aid of a gas.

6. Process according to any one of claims 1-5, characterized in that the contaminated groundwater is contacted with the biologically active layer by pumping.

7 Process according to any one of claims 1-6, characterized in that the contaminated groundwater is contacted with the biologically active layer more than once.

8. Process according to any one of claims 1-7, characterized in that the contaminant is readily soluble.

9. Process according to any one of claims 1-8, characterized in that an electron acceptor is added during the process.

10. Process according to any one of claims 1-9, characterized in that ammonia is nitrified to nitrate and subsequently nitrate is converted into N_2 through addition of a carbon-containing component.

11 Process according to any one of claims 1-10, wherein the contaminant is NH_3 and which process comprises the following steps:

a) a biologically active layer is applied in or on the soil

b) the contaminated groundwater is contacted under aerobic conditions

with the biologically active layer whereby in the biologically active layer NH_3 is converted into NO_3^-

c) step b) is repeated during a period of time that is needed to reduce the concentration of NH_3 to the desired level

d) subsequently, the groundwater whose concentration of NH_3 has been reduced to the desired level is contacted with the biologically active layer under anaerobic conditions

e) step d) is repeated during the period of time that is needed to reduce the concentration of NO_3^- to the desired level.

12. Process according to any one of claims 1-11, characterized in that a detergent is added.